Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (original) A data product that can be read into a computer or a map data processing apparatus, containing therein map data having map-related information of a map, the map data comprising:

a structure having the map-related information divided into units of a plurality of divisions into which the map is divided; and

a structure having management information for the map-related information divided into units of the divisions, wherein:

the map-related information obtained by the computer or the map data processing apparatus can be updated in units of the individual divisions by using the management information.

2.   (original) A data product according to claim 1, wherein:

the map is divided into a plurality of first division units, the first division units are each divided into a plurality of second division units, a number of the second division units is equal among the individual first division units, and the divisions into which the map is divided each corresponding to one of the second division units; and

the management information contains a set of management information related to the plurality of second division units, provided in correspondence to each of the first division units.

3.   (original) A data product according to claim 2, wherein:

the management information further contains management information related to the plurality of first division units.

4.   (original) A data product according to claim 1, wherein:

a plurality of levels are defined, each in correspondence to one of a plurality of different scaling factors at which the map is rendered;

the map is divided into a plurality of first division units at each level, the first division units are each divided into a plurality of second division units, the number of second division units is equal among the individual first division units, and the divisions into which the map is divided each corresponding to one of the second division units;

a plurality of sets of the map-related information are provided in correspondence to the plurality of levels; and

the management information contains a set of management information related to the plurality of first division units provided in correspondence to each of levels, and also contains a set of management information related to the plurality of second division units provided in correspondence to each of the first division units.

5. (original) A data product according to claim 1, wherein:

the map-related information which is provided in units of the individual divisions is separated into different types of map-related information to be individually managed.

6. (original) A data product according to claim 1, wherein:

a plurality of levels are defined, each in correspondence to one of a plurality of different scaling factors at which the map is rendered;

a plurality of sets of the map-related information are provided in correspondence to the plurality of levels; and

as the map-related information provided in units of the individual divisions, at least one type of map-related information available at all levels and another type of map-related information available at, at least, one level are provided separately from each other.

7. (original) A data product according to claim 6, wherein:

the one type of map-related information is used to display the map at a display device; and

the other type of map-related information contains information used in route search.

8. (original) A data product according to claim 1, wherein:

a connecting point at which the map-related information corresponding to one of two divisions is correlated to the map-related information corresponding to the other division is present at a geographically matching position within the two divisions; and

sets of information related to the connecting point contain common two-dimensional coordinate values indicating the position of the connecting point within the map in the map-related information corresponding to the two divisions.

9. (original) A data product according to claim 8, wherein:

the two-dimensional coordinate values are values corresponding to latitudinal and longitudinal values.

10. (currently amended) A data product according to claim 8 or claim 9, wherein:

the information related to the connecting point contains a parameter other than the two-dimensional coordinate values of the connecting point in addition to the two-dimensional coordinate values.

11. (original) A data product according to claim 10, wherein:

the parameter contains height information indicating a height of the connecting point.

12.   (currently amended) A data product according to claim 10 ~~or claim 11~~, wherein:

the parameter contains time information related to generation and update of the map-related information provided in units of the individual divisions.

13.   (currently amended) A data product according to ~~any of claims 8 through 12,~~ claim 8, wherein:

a plurality of levels are defined, each in correspondence to one of a plurality of different scaling factors at which the map is rendered;

a plurality of sets of the map-related information are provided in correspondence to the plurality of levels;

the map is divided into a plurality of divisions at each level, and each of the plurality of sets of map-related information, corresponding to a given level, is divided in units of the individual divisions into which the map is divided;

the two divisions belong to levels different from each other, and two-dimensional coordinate values of the connecting point at a level at which the map is rendered in greater detail are attached to the two-dimensional coordinate values of the connecting point at a given level.

14.   (original) A data product according to claim 1, wherein:

the map-related information provided in units of individual divisions is separated into different types of map-related information to be individually managed; and

map-related information having the highest priority among the different types of map-related information is managed by setting a predetermined upper limit to the size thereof.

15.   (original) A data product according to claim 14, wherein:

if the size of the map-related information having the highest priority exceeds the predetermined upper limit after update, at least map-related information corresponding to an excess beyond the predetermined upper limit to the size, which results from the update, is managed as map-related information with lower priority relative to the highest priority.

16.   (currently amended) A data product according to claim 14 or 15, wherein:

the map-related information with the highest priority includes at least information used to display the map at a display device.

17.   (original) A data product according to claim 15, wherein:

the map-related information with the highest priority includes at least information used to display the map at a display device; and

the map-related information with the lower priority relative to the highest priority includes information that enables display of a more detailed map at the display device, compared to the map displayed by using the map-related information with the highest priority.

18.   (currently amended) A data product according to ~~any of claims 1 through 17,~~ <u>claim 1,</u> embodied as a recording medium having the map data recorded therein.

19.   (original) A map data processing apparatus, comprising:

a recording medium drive unit at which a data product according to claim 18 is loaded;

an update data acquisition unit that obtains update data for the map-related information provided in units of the individual divisions; and

a processing unit that processes the map data based upon the map data recorded in the recording medium and the update data obtained by the update data acquisition unit.

20.   (original) A map data processing apparatus according to claim 19, wherein:

the map data are map display data; and

the processing unit displays a map at a display unit by connecting the map data recorded in the recording medium with the update data obtained by the update data acquisition unit.

21.   (original) A map data processing apparatus according to claim 19, wherein:

the map data are route search data; and

the processing unit executes route search processing by connecting the map data recorded in the recording medium with the update data obtained by the update data acquisition unit.

22.   (original) A method for processing map data in a map data processing apparatus, comprising steps for;

reading map data management information indicating specific positions in a recording medium, at which map data divided into a plurality of divisions are stored, from the recording medium having stored therein the plurality of map data divisions and the management information into a nonvolatile memory within a map data processing apparatus;

altering part of the management information in the nonvolatile memory corresponding to update data so as to indicate a position at which the update data are stored, when the update data for partially updating the map data in units of the individual divisions are obtained; and

accessing the map data based upon the management information in the nonvolatile memory.

23.   (original) A program product that can be read into a computer or a map data processing apparatus, containing a map data processing program executed to process map data, the map data processing program comprising:

an instruction code for reading map data management information indicating specific positions in a recording medium, at which map data divided into a plurality of divisions are stored, from the recording medium having stored therein the plurality of map data divisions and the management information into a nonvolatile memory within a map data processing apparatus;

an instruction code for altering part of the management information in the nonvolatile memory corresponding to update data so as to indicate a position at which the update data are stored, when the update data for partially updating the map data in units of the individual divisions are obtained; and

an instruction code for accessing the map data based upon the management information in the nonvolatile memory.

24.   (original) A map data processing apparatus that processes map data, comprising:

a recording medium drive unit at which a recording medium is loaded having stored therein the map data divided into a plurality of divisions and map data management information indicating specific storage positions of the plurality of map data divisions in the recording medium;

a nonvolatile memory into which the management information read from the recording medium is stored;

an update data acquisition unit that obtains update data to be used to update part of the map data in units of the individual divisions; and

a control unit that alters part of the management information in the nonvolatile memory corresponding to the updated data so as to indicate a storage position of the update data when the update data acquisition unit obtains the update data, and accesses the map data based upon the management information in the nonvolatile memory.

25.   (original) A method for processing map data in a map data processing apparatus, comprising steps for:

confirming that a recording medium is loaded at the map data processing apparatus, the recording medium having stored therein the map data divided into a plurality of divisions and map data management information indicating specific storage positions of the plurality of map data divisions in the recording medium;

storing identification information, which bears an initial value indicating that the map data management information used in the map data processing apparatus is stored in the recording medium, into a first nonvolatile memory;

storing update data obtained to update part of the map data in units of individual divisions into a second nonvolatile memory, obtaining the map data management information from the recording medium, altering part of the management information corresponding to the update data so as to indicate a storage position of the update data in the second nonvolatile memory, storing the management information into a third nonvolatile memory, and altering the identification information stored in the first nonvolatile memory to identification

information indicating that the map data management information is stored in the third nonvolatile memory;

obtaining the identification information to ascertain whether the map data management information is stored in the recording medium or in the third nonvolatile memory by accessing the first nonvolatile memory when accessing the map data;

obtaining the map data management information from the recording medium if the map data management information is determined to be stored in the recording medium;

obtaining the map data management information from the third nonvolatile memory if the map data management information is determined to be stored in the third nonvolatile memory; and

accessing the map data based upon the obtained map data management information.

26.   (original) A program product that can be read into a computer or a map data processing apparatus, containing a map data processing program executed to process map data, the map data processing program comprising:

an instruction code for confirming that a recording medium is loaded at the map data processing apparatus, the recording medium having stored therein the map data divided into a plurality of divisions and map data management information indicating specific storage positions of the plurality of map data divisions in the recording medium;

an instruction code for storing identification information, which bears an initial value indicating that the map data management information used in the map data processing apparatus is stored in the recording medium, into a first nonvolatile memory;

an instruction code for storing update data obtained to update part of the map data in units of individual divisions into a second nonvolatile memory, obtaining the map data management information from the recording medium, altering part of the management information corresponding to the update data so as to indicate a storage position of the update data in the second nonvolatile memory, storing the management information into a third nonvolatile memory, and altering the identification information stored in the first nonvolatile memory to identification information indicating that the map data management information is stored in the third nonvolatile memory;

an instruction code for obtaining the identification information to ascertain whether the map data management information is stored in the recording medium or in the third nonvolatile memory by accessing the first nonvolatile memory when accessing the map data;

an instruction code for obtaining the map data management information from the recording medium if the map data management information is determined to be stored in the recording medium;

an instruction code for obtaining the map data management information from the third nonvolatile memory if the map data management information is determined to be stored in the third nonvolatile memory; and

an instruction code for accessing the map data based upon the obtained map data management information.

27.   (original) A map data processing apparatus that processes map data, comprising:

a recording medium drive unit at which a recording medium having stored therein the map data divided into a plurality of divisions and map data management information indicating specific storage positions of the plurality of map data divisions in the recording medium is loaded;

a first nonvolatile memory in which identification information bearing an initial value indicating that map data management information used in the map data processing apparatus is stored in the recording medium is stored when the recording medium is loaded into the recording medium drive unit;

an update data acquisition unit that obtains update data to be used to update part of the map data in units of the individual divisions;

a second nonvolatile memory in which the update data obtained by the update data acquisition unit are stored;

a control unit that obtains the map data management information from the recording medium when the update data acquisition unit obtains the update data, alters part of the management information corresponding to the update data so as to indicate a storage position of the update data in the second nonvolatile memory and alters the identification information stored in the first

nonvolatile memory to identification information indicating that the map data management information is stored in a third nonvolatile memory; and

the third nonvolatile memory in which the map data management information having been altered by the control unit is stored, wherein:

the control unit obtains the identification information by accessing the first nonvolatile memory to ascertain whether the map data management information is stored in the recording medium or in the third nonvolatile memory when accessing the map data, obtains the map data management information from the recording medium if the map data management information is determined to be stored in the recording medium, obtains the map data management information from the third nonvolatile memory if the map data management information is determined to be stored in the third nonvolatile memory, and accesses the map data based upon the obtained map data management information.

28.   (original) A method for processing map data in a map data processing apparatus, comprising steps for;

confirming that a recording medium is loaded at the map data processing apparatus, the recording medium having stored therein the map data divided into a plurality of divisions and map data management information indicating specific storage positions of the plurality of map data divisions in the recording medium;

storing identification information, which bears an initial value indicating that the map data management information used in the map data processing apparatus is stored in the recording medium, into a first nonvolatile memory;

confirming a connection with a second nonvolatile memory in which update data used to update part of the map data in units of the individual divisions are written;

obtaining the map data management information from the recording medium when the connection with the second nonvolatile memory is confirmed, altering part of the management information corresponding to the update data so as to indicate a storage position of the update data in the second nonvolatile memory, storing the management information into a third nonvolatile memory and altering the identification information stored in the first nonvolatile memory to identification information indicating that the map data management information is stored in the third nonvolatile memory;

obtaining the identification information to ascertain whether the map data management information is stored in the recording medium or in the third nonvolatile memory by accessing the first nonvolatile memory when accessing the map data;

obtaining the map data management information from the recording medium if the map data management information is determined to be stored in the recording medium;

obtaining the map data management from the third nonvolatile memory if the map data management information is determined to be stored in the third nonvolatile memory; and

accessing the map data based upon the obtained map data management information.

29. (original) A program product that can be read into a computer or a map data processing apparatus, containing a map data processing program executed to process map data, the map data processing program comprising:

an instruction code for confirming that a recording medium is loaded at the map data processing apparatus, the recording medium having stored therein the map data divided into a plurality of divisions and map data management information indicating specific storage positions of the plurality of map data divisions in the recording medium;

an instruction code for storing identification information, which bears an initial value indicating that the map data management information used in the map data processing apparatus is stored in the recording medium, into a first nonvolatile memory;

an instruction code for confirming a connection with a second nonvolatile memory in which update data used to update part of the map data in units of the individual divisions are written;

an instruction code for obtaining the map data management information from the recording medium when the connection with the second nonvolatile

memory is confirmed, altering part of the management information corresponding to the update data so as to indicate a storage position of the update data in the second nonvolatile memory, storing the management information into a third nonvolatile memory and altering the identification information stored in the first nonvolatile memory to identification information indicating that the map data management information is stored in the third nonvolatile memory;

an instruction code for obtaining the identification information to ascertain whether the map data management information is stored in the recording medium or in the third nonvolatile memory by accessing the first nonvolatile memory when accessing the map data;

an instruction code for obtaining the map data management information from the recording medium if the map data management information is determined to be stored in the recording medium;

an instruction code for obtaining the map data management from the third nonvolatile memory if the map data management information is determined to be stored in the third nonvolatile memory; and

an instruction code for accessing the map data based upon the obtained map data management information.

30.   (original) A map data processing apparatus that processes map data, comprising:

a recording medium drive unit at which a recording medium having stored therein the map data divided into a plurality of divisions and map data management information indicating specific storage positions of the plurality of map data divisions in the recording medium is loaded;

a first nonvolatile memory in which identification information bearing an initial value indicating that map data management information used in the map data processing apparatus is stored in the recording medium is stored when the recording medium is loaded into the recording medium drive unit;

a memory connection unit that enables a connection with a second nonvolatile memory in which update data used to update part of the map data in units of the individual divisions are written;

a control unit that obtains the map data management information from the recording medium when a connection of the second nonvolatile memory with the memory connection unit is confirmed, alters part of the management information corresponding to the update data so as to indicate a storage position of the update data in the second nonvolatile memory and alters the identification information stored in the first nonvolatile memory to identification information indicating that the map data management information is stored in a third nonvolatile memory; and

the third nonvolatile memory in which the map data management information having been altered by the control unit is stored, wherein:

the control unit obtains the identification information by accessing the first nonvolatile memory to ascertain whether the map data management

information is stored in the recording medium or in the third nonvolatile memory when accessing the map data, obtains the map data management information from the recording medium if the map data management information is determined to be stored in the recording medium, obtains the map data management information from the third nonvolatile memory if the map data management information is determined to be stored in the third nonvolatile memory, and accesses the map data based upon the obtained map data management information.

31.   (currently amended) A program product according to ~~any of claims 24, 27 and 30,~~ claim 24, embodied as a recording medium having recorded therein the map data processing program.